



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/601,545 | 03/29/2001 | Francois Breynaert | 60130-865 | 7785 |

26096 7590 12/20/2002

CARLSON, GASKEY & OLDS, P.C.
400 WEST MAPLE ROAD
SUITE 350
BIRMINGHAM, MI 48009

EXAMINER

CUEVAS, PEDRO J

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2834

DATE MAILED: 12/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/601,545

Applicant(s)

BREYNAERT, FRANCOIS

Examiner

Pedro J. Cuevas

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2834

DETAILED ACTION

Response to Arguments

1. In view of the Appeal Brief filed on October 30, 2002, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

2. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4, and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,231,321 to Takiguchi in view of U.S. Patent No. 5,717,270 to Lau et al.

Art Unit: 2834

Takiguchi clearly teaches the construction of a noise suppression system for a permanent-magnet motor (1), in which:

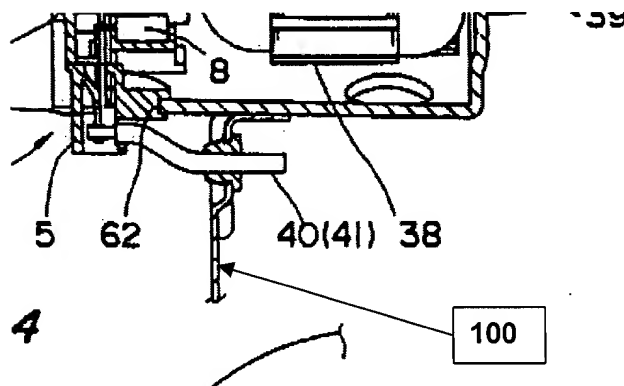
the motor includes supply brushes (26, 27) connected to an external power supply by leads (40, 41), which are associated with inductors (6, 7);

and a metal casing (5), characterized in that:

each brush is connected to the metal casing of the motor through at least one noise suppression capacitor (8),

in that the metal casing of the motor is connected to the vehicle's earth, and

that the metal casing of the motor and the functional device have complementary means (100, added by the examiner) for earthing the casing.



However, it fails to disclose each of said brushes is separately connected to said casing by at least one noise suppression capacitor.

Lau et al. teach the construction of a rotor of an electric motor wherein:

each of the brushes (column 3, lines 14-17) is separately connected to a star point and to the terminal portion of the commutator segment by at least one noise suppression capacitor (44) for the purpose of maintaining a minimum length of the commutator/rotor;

a shaft (21) rotatable relative to said casing having an output;

a plurality of capacitors (44) with at least one of said capacitors separately connecting each of said brushes to said casing for suppressing noise (Figure 4);

said casing being grounded (100, added by the examiner) via connection to a vehicle function device;

each of said brushes is connected to said power supply with a supply lead forming a plurality of noise suppression circuits (Figure 4).

It would have been obvious to one skilled in the art at the time the invention was made to use the separately connected noise suppression capacitors, brushes and shaft disclosed by Lau et al. on the noise suppression system disclosed by Takiguchi for the purpose of maintaining a minimum length of the commutator/rotor.

5. With regards to claim 4, Takiguchi disclose a permanent magnet motor wherein the means for earthing the casing of the motor comprise means (100) for fastening this motor to the functional device.

6. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,231,321 to Takiguchi in view of U.S. Patent No. 5,949,173 to Wille et al.

Takiguchi in view of Lau et al. discloses the claimed invention except for supply leads being formed by ferrite-loaded wires.

Wille et al. teaches the use of ferrite core choke coils on a motor for the purpose of connecting the brushes and the respective current bus bar.

It would have been obvious to one skilled in the art at the time the invention was made to use the ferrite core choke coils disclosed by Wille et al. on the permanent-magnet motor

Art Unit: 2834

disclosed by Takiguchi for the purpose of connecting the brushes and the respective current bus bar.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,231,321 to Takiguchi in view of U.S. Patent No. 5,717,270 to Lau et al. as applied to claims 1, 4, and 6-10 above, and further in view of U.S. Patent No. 5,949,173 to Wille et al.

Takiguchi in view of Lau et al. disclose the construction of a noise suppression system as described above.

However, it fails to disclose the use of supply leads formed by ferrite-loaded wires.

Wille et al. teaches the use of ferrite core choke coils on a motor for the purpose of connecting the brushes and the respective current bus bar.

It would have been obvious to one skilled in the art at the time the invention was made to use the ferrite core choke coils disclosed by Wille et al. on the noise suppression system disclosed by Takiguchi in view of Lau et al. for the purpose of connecting the brushes and the respective current bus bar.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

Art Unit: 2834


MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (703) 308-4904. The examiner can normally be reached on M-F from 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R. Ramírez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Pedro J. Cuevas
December 17, 2002



NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800